Payloads shares plaque hanging honors

The Payload Operations Team, lead by Jeff Hanley, shared the honor of hanging the STS-75 plaque in Mission Control with three other teams that earned outstanding honors from Lead Flight Director Chuck Shaw.

JSC

People

"The hardest challenges for STS-75 seemed to all be associated with the Tethered Satellite System payload," Shaw said. "It would be unfair and misleading to try to single out any single group that exemplified how things were tackled and solved. The TSS payload provided the forum for four different teams to rise to the occasion and go well beyond the call of duty both preflight and real time."

Joining Hanley at the ladder was Bob Mahoney, lead of the Dynamics Training Team; Joe Williams, lead of the TSS Dynamics Team; and Terry Quick, lead of the TSS Satellite Data Recovery Team.

Young earns SAE honors

John Young, associate director of JSC, recently earned the Forest McFarland Award from the Society of Automotive Engineers. Young was cited for his contributions to technical sessions at SAE international meetings and conferences.

Guidry earns top award

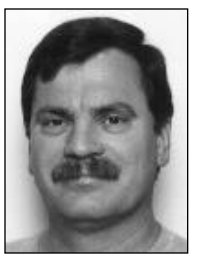
Sheila Guidry of the Astronaut Selection Office recently earned the Marilyn T. Bockting Award for Secretarial Excellence. Guidry was cited for her diversity in handling a variety of tasks including awards, astronaut selection, ASCAN training and personnel processing. Her cheerful attitude and initiative were credited with keeping the office running smoothly even through peak busy times.

Hanley

Young

Guidry

Lulla



Hadash

Shafer

Lulla earns top award

Kamlesh Lulla, chief of the Earth Science Branch, recently was awarded the Outstanding South Asian Professional by the South Asian Chamber of Commerce.

Lulla was selected from more than 100 nominees for his significant scientific and technical accomplishments in the space program.

Barrios employee honored

E.J. Hadash of Barrios Technology, which supports the Manufacturing, Materials and Process Technology Division, recently was awarded a special citation for Exceptional Volunteer Service from the American Red Cross. Hadash was recognized for his personal commitment to working in disaster services since 1987. He has served as disaster communications chair since 1992 and has been vital in strengthening the chapter's communications systems.

Former security chief dies

Everett Shafer, former chief of the Security Division, died last week.

Shafer retired after 30 years of service at JSC. He began his career in 1963 as a security specialist. In 1972 he was appointed deputy chief of the Security Branch, and chief in 1978. In 1983, Shafer was appointed deputy chief of the Management Services Division and in 1986 he became chief of the Security Division where he remained until his retirement in 1993. Services were held last Saturday in Dublin, Texas.

MCC open for portions of STS-76

The Mission Control Center viewing room will be open to JSC and contractor badged employees and their families during portions of the STS-76 mission.

Employees will be allowed to visit the MCC from 1-5 p.m. Saturday and 11:30 a.m.-2:30 p.m. Wednesday.

Employees must wear their badges and escort family members through the lobby of Bldg. 30 South. Children under five will not be permitted. No flash photography or loud talking will be permitted at any time. Because of the dynamic nature of shuttle mission, viewing hours may be changed or canceled without notice.

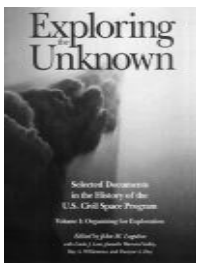
For the latest information on the schedule, call the Employee Information Service at x36765.

JSC Photo by Nick Nelms

AWARDING QUALITY PERFORMANCE—DynCorp's Chief Operating Officer Paul Lombardi presents the "President's Quality Award" to DynCorp's Johnson Support Division at an awards ceremony held last week at Ellington Field. JSD, maintenance contractor for all JSC aircraft, was chosen out of 520 operating locations and 17,000 employees worldwide to receive its company's highest performance award for outstanding team accomplishments in quality and value improvement.

New history series book now available

Exploring the Unknown: Selected Documents in the History of The U.S. Civil Space Program, has been published through the Government Printing Office in cooperation with the NASA History Office and is available for purchase in the JSC Exchange Store.



The publications tell the story of the U.S. space program through the actual documents which enabled individuals to plan and accomplish the nation's mission of exploring the unknown.

Volume 1, the first of three to be published, is subtitled "Organizing for Exploration." It deals with more than 200 documents, many of which are published for the first time. Each section includes a forward which provides context, bibliographical details and background information necessary to understand the documents. The documents are separated into four eras, beginning with a narrative explaining the historical significance of the documents and their place in the timeline of the space program.

Volume II, due out at the end of the year, will deal with NASA's cooperative efforts with other organizations domestically and abroad. In July 1997 the series will be completed with publication of Volume III, which will take a detailed look at the agency's programs and projects.

Employees may review a copy of Vol. 1 in the Bldg. 45 library and can purchase the book for $20 through the Exchange Store.

Galileo scientists report Jupiter findings

Scientists continuing to analyze information returned by the Galileo atmospheric probe that plunged into Jupiter last December report more surprises about the giant gas planet.

Most significantly, the ratio of the elements that make up 99 percent of the Jovian atmosphere—helium and hydrogen—now closely matches that found in the Sun, suggesting that Jupiter's bulk composition has not changed since the planet formed several billion years ago. Estimated amounts of key heavy elements such as carbon and sulfur have increased, but minimal organic compounds were detected, and estimates for Jupiter's wind speeds have climbed still higher.

Probe scientists are reporting these refined results this week at the Lunar and Planetary Science Conference at the Gilruth Center.

The ratio of helium to hydrogen by mass is key to developing theories of planetary evolution. In the Sun, this value is about 25 percent. During a January 1996 press conference, Galileo probe scientists estimated that this number for Jupiter was 14 percent. More comprehensive analysis of results from the probe's helium abundance detector has raised this estimate for Jupiter to 24 percent.

"This increase implies that the amount of helium in the Jovian atmosphere is close to the original amount that Jupiter gathered as it formed from the primitive solar nebula that spawned the planets," according to Richard Young, Galileo probe project scientist of Ames Research Center.

The new estimate of the helium-to-hydrogen ratio on Jupiter is supported by analysis of complementary data from the Galileo probe's neutral mass spectrometer.

These new helium results are raising related estimates for the abundances of other key compounds, such as methane. Several heavy elements, including carbon, nitrogen and sulfur, are significantly greater in abundance on Jupiter than in the Sun. "This implies that the influx of meteorites and other small bodies into Jupiter over the eons since its formation has played an important role in how Jupiter has evolved," said Young.

However, minimal organic compounds were detected, indicating that such complex combinations of carbon and hydrogen are rare on Jupiter and that the chances of finding biological activity on Jupiter similar to that found on Earth are extremely remote.

The strong Jovian atmospheric winds continue to exceed expectations. Wind speed estimates announced in January of up to 330 mph have grown to more than 400 mph. The winds persisted far below the one cloud layer detected, strongly suggesting that heat escaping from deep in the planet's interior drives the winds, rather than solar heating.

Further analysis of probe data has confirmed the preliminary report that the Jovian atmosphere appears to be relatively dry, with much less water than anticipated on the basis of solar composition. Scientists confirmed that the probe's instruments found much less lightning activity on Jupiter per unit area than on Earth. Lightning on Jupiter was found to be about 1/10th of that found on Earth in an area of the same size.

President submits stable funding for NASA in FY97

(Continued from Page 1)

and advanced projects.

The science, aeronautics and technology budget includes $1.86 billion for space science, $498 million for life and microgravity sciences, $1.4 billion for Mission to Planet Earth, $725 million for space access and technology, $857 million for aeronautical research and technology, $420 million for mission communication services and $100 million for academic programs.

The mission support segment includes $36.7 million for safety, reliability and quality assurance, $291 million for space communication services, $2.1 billion for research and program management and $155 million for facility construction.

"In one way this budget actually is good news for NASA," Goldin said, "we have stable funding for the present in an era when almost all agencies' budgets are declining, some precipitously, in the very near term. We laid out our case and asked the administration for funding stability.... In return, we stepped up to the plate and made the hard choices relative to program restructuring and workforce decreases that other agencies now are being forced to make as a result of budget reductions and Congressional mandates. The administration has seen our good faith efforts and has backed us."

The budget includes tentative projections for the future that are significantly lower than previous expectations but not yet set in stone. The projections are for a fiscal 1998 budget of $13.1 billion, a fiscal 1999 budget of $12.4 billion and a fiscal 2000 budget of $11.6 billion. Goldin said he has decided not to act on these potential out-year cuts until the long-range federal budget situation has been clarified.

Between fiscal 1997 and 2000, Goldin said the agency will save $1.6 billion by reducing direct program support through re-engineering, streamlining, reorganization and role changes, $1.45 billion by moving work to the private sector, $850 million by reducing the cost of operating and maintaining NASA facilities, and $100 million by implementing performance-based contracts for research, maintenance and operations.

"We're doing relatively well right now with regard to our budget, but we'll continue to shrink our workforce over the next few years, particularly at NASA Headquarters," he said. NASA Headquarters recently began the process of moving functions equivalent to about 200 employee positions to the centers. Some will be reassignments from Headquarters; others will be new jobs constructed from portions of various existing functions.

The process will enable NASA to meet the goals of the administration's National Performance Review, which calls for reducing headquarters organizations by 50 percent, halving the number of supervisory positions, and cutting administrative functions like procurement, personnel, budget and accounting.

STS-76 features first space walk during docking

(Continued from Page 1)

launch would lead to a docking with Mir at about 9:36 p.m. CST Friday. The hatches would be opened between the two spacecraft at about 11:35 p.m. CST Friday, and the two crews would exchange greetings and gifts in a brief ceremony.

Lucid will remain aboard the Mir station after *Atlantis* undocks, becoming the first American woman to serve as a Mir crew member. She will remain aboard the orbiting station until *Atlantis* again docks with Mir in early August.

Other highlights of the mission given a Thursday launch include a six-hour space walk by Clifford and Godwin starting at 1:10 a.m. Tuesday. The space walk will be the first ever performed while the shuttle is docked to the Mir and serve as precursor to such activities planned after launch of the International Space Station. The two space walkers will attach a package of experiments to the exterior of the Mir Docking Module that will characterize the space environment around the exterior of the station. Following retrieval of the experiments later this year, station designers will gain added insight into the environment anticipated around the International Space Station.

With a Thursday liftoff, landing would take place at 7:04 a.m. CST March 30 at KSC. For a Friday launch, the schedule of activities would move later by about a day, with the Mir rendezvous planned on Flight Day 3 of the mission and the space walk scheduled for Flight Day 6.

Last week, shuttle managers completed an investigation into a singed wiper O-ring in the solid rocket booster's nozzle-to-case joint for STS-75, and cleared *Atlantis*' solid rockets for launch.

"After reviewing both flights and test data, and after an extensive analysis, we have concluded that the nozzle-to-case joint is robust and sturdy and that the joint's design is safe to fly," said JSC Director George Abbey, who chaired a special teleconference on the analysis March 15.

NASA-JSC